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EXAMINER
RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
2621	

MAIL DATE	DELIVERY MODE
01/05/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _26 October 2009_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _10/26/09_.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Applicant's arguments filed on 10/26/09 with respect to claims 1-22 (amended) have been
fully considered but they are not persuasive.

2.   The Applicant presents one substantive argument contending the Examiner's rejection of
previously pending claims 1-22 under 35 U.S.C. 102(e) as being anticipated by Limberg et al.,
(hereinafter referred to as "Limberg"), as was set forth in the Office Action of 7/31/09, said
argument being presented in support of the newly added limitations of the "…data bit stream
and…parameter bitstream…" and "…data encoder…and a parameter encoder…" limitations of
the currently amended claims. However, after a careful consideration of the argument and further
scrutiny of the applied reference, the Examiner must respectfully disagree and maintain the
applicability of reference as the basis of the grounds rejection that follows.

        After indicating to the Examiner how the previously pending rejection of claims 12-22
under 35 USC § 101 has been sufficiently addressed (Amendment of 10/26/09: page 10, lines 7-
11), providing the Applicant's detailed interpretation of the applied reference (Amendment of
10/26/09: page 10, lines 21-22; page 11, lines 1-17), the Applicant argues that Limberg fails to
address the "…wherein the encoder includes a data encoder for encoding the data bit stream and
a parameter encoder for encoding the parameter bit stream…" limitation (Amendment of
10/26/09: page 10, lines 14-20; page 11, lines 18-21), as in the claims. The Examiner
respectfully disagrees. It is duly noted that Limberg discloses the presence of a packet assembler
(Limberg: figure 4, element 02) which includes a transport stream processor and multiplexer
(Limberg: column 9, lines 25-40). However, upon analysis of the associated DTV receiver of the

disclosure (Limberg: figure 7), the Examiner notes that said receiver discloses the use of a packet

sort that includes a transport demultiplexer and associated decoder for decoding both the data

and associated parameters (Limberg: column 20, lines 37-50). Accordingly, since the Limberg

discloses the use of transport decoding circuitry in the packet sorter at the receiver, the Examiner

notes that the presence of a transport encoder along with the multiplexer at the packet assembler.

The Examiner notes that while the multiplexer sends the data stream to the data randomizer, it

would not do so with the parameter stream data, and allow of the independent generation of the

stream (Limberg: column 10, lines 60-67). Accordingly, the Examiner maintains that "…wherein

the encoder includes a data encoder for encoding the data bit stream and a parameter encoder for

encoding the parameter bit stream…" remains sufficiently addressed by the reference.

      A detailed rejection follows.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

4.   Claims 1-22 (amended) are rejected under 35 U.S.C. 102(e) as being anticipated by

Limberg et al., (hereinafter referred to as "Limberg").

        Limberg discloses an apparatus for wirelessly communicating a leading bit string

(Limberg: figure 4) comprising a header and a body, and a trailing bit string comprising a header

and a body (Limberg: column 20, lines 35-40), the apparatus comprising: an encoder configured

for encoding a data bit stream and a parameter bit stream (Limberg: column 10, lines 60-67) to

form the body of the leading bit string (Limberg: column 9, lines 64-67; column 10, lines 1-9),

and forming the header of the trailing bit string to include at least one bit of a parameter to be

used by a receiver in decoding the encoded the data bit stream and the parameter bit stream

(Limberg: column 10, lines 17-24); and a transmitter configured for transmitting to the receiver a

wireless signal representing at the receiver the leading bit string and then the trailing bit string

(Limberg: column 9, lines 25-50), wherein the encoder includes a data encoder for encoding the

data bit stream and a parameter encoder for encoding the parameter bit stream (Limberg: column

9, lines 25-40; column 20, lines 35-50), as in claim 1.

        Regarding claim 2, Limberg discloses wherein the receiver comprises a digital television

receiver Limberg: column 14, lines 25-35), as in the claim.

Regarding claim 3 wherein said encoder is further configured for creating said bit strings so that a parameter in at least one of the leading and trailing bit string headers is utilizable by an equalizer in said receiver to resolve a signal that embodies at least one of the leading and trailing bit strings (Limberg: column 12, lines 12-45), as in the claim.

Regarding claim 4, wherein said parameter is one of a plurality of parameters having bits, the plural bits of the parameters being divided into two bit groups each having an equal number of bits, one of said bit groups being utilized in forming the leading bit string headers, the other bit group being utilized in forming the trailing bit string header, each of said bit groups further comprising a parity bit generated based on the bits of equal number of for the bit group (Limberg: column 9, lines 40-50), as in the claim.

Limberg discloses an apparatus for wirelessly transmitting a data bit stream and a parameter bit stream (Limberg: figure 4),the apparatus comprising: an encoder configured for applying a fixed code to encode bits of the data bit stream and the parameter bit stream (Limberg: column 10, lines 60-67), one-by-one, to create an encoded bit-stream (Limberg: column 9, lines 64-67; column 10, lines 1-9); and a transmitter configured for modulating the encoded bit-stream to produce a signal whose frequency range at any given time is predetermined independently of the code, and for wirelessly transmitting said signal within the frequency range (Limberg: column 9, lines 25-50), wherein the encoder includes a data encoder for encoding the data bit stream and a parameter encoder for encoding the parameter bit stream (Limberg: column 9, lines 25-40; column 20, lines 35-50), as in claim 5.

Regarding claims 6-7, Limberg discloses wherein the fixed code comprises a linear recursive sequence such as "0001111101011001" (Limberg: figures 1A-1B), as in the claim.

Regarding claim 8, Limberg discloses wherein the encoder further comprises a sequence

generator that includes: a four-element shift register, the first element of the four-element shift

register having an input terminal and the fourth element of the four-element shift register having

an output terminal (Limberg: column 15, lines 62-67; column 16, lines 1-35); and an exclusive-

OR (XOR) gate tap disposed between the third element and the fourth elements element of the

four- element shift register, wherein said output terminal is connected to feed back to the first

element and to the XOR gate tap (Limberg: column 20, lines 30-40), as in the claim.

Regarding claim 9, Limberg discloses wherein said encoder being is configured for

encoding a data bit-stream and for combining the parameter and data bit-streams, after the

parameter and data bit-streams have been encoded, to create said encoded bit-stream that is

modulated to produce said signal whose frequency range at any given time is predetermined

independently of the code, the parameter being defined so as to be utilizable by an equalizer

configured to receive and to resolve said signal, the equalizer being part of a receiver configured

for decoding the encoded data bit-stream from said body (Limberg: column 9, lines 40-50), as in

the claim.

Regarding claims 10-11, Limberg wherein the encoder performs bit-by-bit encoding of

said bits it performed at least one bit one bit at a time, the data to be encoded in forming said

body of the leading bit string not being encoded one bit at a time using a fixed code (Limberg:

figures 1A-1B), as in the claims.

Limberg discloses a method for wirelessly communicating via a processor a leading bit

string (Limberg: column 6, lines 16-25), comprising a header and a body, and a trailing a-bit

string comprising a header and a body (Limberg: column 20, lines 35-40), the method

comprising the steps of: encoding (Limberg: column 9, lines 64-67; column 10, lines 1-9) a data bit stream and a parameter bit stream (Limberg: column 10, lines 60-67); forming the body of the leading bit string from the encoded bit streams (Limberg: column 9, lines 17-24); forming the header of the trailing bit string to include at least one bit of a parameter to be used by a receiver in decoding the encoded bit streams (Limberg: column 9, lines 25-30); and transmitting to the receiver a wireless signal representing at the receiver the leading bit string and then the trailing bit string (Limberg: column 9, lines 31-50), wherein the encoder includes a data encoder for encoding the data bit stream and a parameter encoder for encoding the parameter bit stream (Limberg: column 9, lines 25-40; column 20, lines 35-50), as in claim 12.

Regarding claim 13, Limberg discloses wherein the receiver comprises a digital television receiver (Limberg: column 14, lines 25-35), as in the claim.

Regarding claim 14, Limberg discloses further comprising the step of utilizing, by an equalizer in said receiver, a parameter in at least one of the leading and trailing bit string headers to resolve a signal that embodies at least one of the leading and trailing bit strings (Limberg: column 12, lines 12-45), as in the claim.

Regarding claim 15, Limberg discloses wherein said parameter is one of a plurality of parameters having bits, the forming step further comprising the steps of: dividing the plural bits of the parameters into two bit groups each having an equal number of bits; generating a parity bit for each bit group, both parity bits being generated b3sed on the bits of equal number of the group; utilizing one of said bit groups in forming the leading bit string header (Limberg: column 9, lines 40-50); and utilizing the other bit group in forming the trailing bit string headers (Limberg: column 9, lines 51-55), as in the claim.

Limberg discloses method for wirelessly transmitting a bit-stream (Limberg: column 6,

lines 16-25), the method comprising the steps of: determining providing a fixed code (Limberg:

column 9, lines 64-67); applying the fixed code to encode bits of a data bit stream and a

parameter bit stream via an encoder (Limberg: column 10, lines 60-67), one-by-one, to create an

encoded bit-stream (Limberg: column 10, lines 1-9); modulating the encoded bit-stream to

produce a signal whose frequency range at any given time is predetermined independently of the

code (Limberg: column 9, lines 25-30); and wirelessly transmitting said signal within the

frequency rang (Limberg: column 9, lines 31-50), wherein the encoder includes a data encoder

for encoding the data bit stream and a parameter encoder for encoding the parameter bit stream

(Limberg: column 9, lines 25-40; column 20, lines 35-50), as in claim 16.

Regarding claims 17-18, Limberg discloses wherein the fixed code comprises a linear

recursive sequence such as 000111101011001" (Limberg: figures 1A-1B), as in the claims.

Regarding claim 19, Limberg discloses providing a four-element shift register, a first

element of the four-element shift register having an input terminal and a fourth element of the

four-element shift register having an output terminal (Limberg: column 15, lines 62-67; column

16, lines 1-35); disposing an exclusive-OR (XOR) gate tap between a third element of the four-

element shift register and the fourth elements element of the four-element shift register; and

connecting said output terminal to feed back to the first element and to the XOR gate tap

(Limberg: column 20, lines 30-40), as in the claim.

Regarding claim 20, Limberg discloses further comprising the steps of: combining the

parameter bit-stream with a data bit-stream, after the parameter and data bit-streams have been

encoded, to create said encoded bit- stream that is modulated to produce said signal whose

frequency range at any given time is predetermined independently of the code; configuring a bit

string to comprise a header and a body, the header containing encoded bits of the encoded

parameter and the body containing encoded bits of the encoded data bit-stream; and performing

the forming, combining and configuring steps so that the parameter is utilizable by an equalizer

that is to receive and to resolve said signal and that is part of a receiver for decoding the encoded

data bit-stream (Limberg: column 9, lines 40-50), as in the claim.

Regarding claims 21-22, Limberg discloses wherein the-bit-by-bit encoding of said at

least one bit is performed one bit at a time, the data to be encoded in forming said body of the

leading bit stream string not being encoded one bit at a time using a fixed code (Limberg: figures

1A-1B), as in the claims.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The
examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
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Andy S. Rao
Primary Examiner
Art Unit 2621

asr
/Andy S. Rao/
Primary Examiner, Art Unit 2621
January 3, 2010